

Remarks

In the Office Action of November 27, 2003, the drawings were objected to, because it was said that reference number 29 was missing. A proposed amended drawing is submitted herewith in which the number has been added with a lead line to the bellows 29.

In the Office Action, there was an objection to claims 7 and 10, and these matters have been corrected by the amendment.

There was also a rejection of claim 9 under 35 U.S.C. 112, paragraph one, because it was said that it was not apparent how the ring section detached from the housing.

In Figs. 7 and 8, it is shown that the ring section 24, which is a part integral with the material bridge 21, 22, is snapped into housing 16 by the snap connection 33, 57. If, therefore, the material bridges together with the lower part 19 is removed, the ring section 24 together with the whole lower part can be detached, e.g. for reloading the dispenser with a new medium containing chamber. The detachability is advantageous for removing a glass ampulla used as pump chamber before recycling the matter.

Claims 1-8, 13, 16, 20 and 21 were rejected under 35 USC 102 as anticipated by Sandegren.

Claims 10, 14, 15, 17-19 and 23 were rejected as being unpatentable under 35 USC 103 over Sandegren in view of Ritsche.

Claims 11, 12 and 22 were rejected under 35 USC 103(a) as being unpatentable over Sandegren in view of Drewe, US Pat. No. 3,512,524.

In response, claims 1 and 2 have been cancelled without prejudice and a new claim 24 is presented to combine certain features of the cancelled claims with other matter distinguishing from the cited art.

The dependent claims now depend now from new claim 24 except for claims 11 and 12 which have been canceled.

New claim 24 defines the invention as a dispenser which can be used for two subsequent dispensing actions, thereby

dispensing two charges, which are contained directly in the pump chamber. This is especially useful for pharmaceutical sprays, which are to be dispensed in both nostrils of a patient or two different places in short sequence. Both charges originate in the pump chamber and are dispensed by two subsequent strokes of the piston. Please note that the piston may be moved into the chamber or the chamber is moved relative to the piston as in the embodiments.

Though the piston moves in two or more steps into the chamber and does not return for the second stroke, the actuating means including the actuating pusher does return to its initial start position. This much is disclosed in Ritsche U.S. Pat. No. 6,446,839, which is assigned to the assignee of this application. A declaration under 37 CFR 1.130 is submitted herewith to disqualify Ritsche as a reference under 35 USC 103(c), as a result of common ownership of the present application and Ritsche which was copending at the time this application was filed.

Claim 24 further distinguishes from the art in reciting an elastically deformable curved material bridge as shown in the drawings, which acts as a return spring for the actuation means. This is very advantageous because it replaces a metal spring and can be moulded together with other parts of the dispenser. It may be of the same material, namely mouldable plastic material, enabling the user, who is often at a hospital, to recycle the dispensers after the "one but double" use as being merely of plastic material.

Comparing claim 24 with SANDEGREN (U.S. 4,131,217), this reference shows a dispenser without a pump, which is constructed as a so called ball-dispenser. The medium is in a chamber like a flexible ball and the user presses via a pusher 3, 24 on a flexible part of the ball to dispense the medium. There is no division of different strokes.

SANDEGREN does not teach any return stroke or means for returning the pusher. If this would be incorporated in a SANDEGREN device, there would be the danger that the flexible ball 13 would re-extend, thereby sucking air through the needle, which is detrimental for pharmaceutical use. This is

because in SANDEGREN, the elastic element is directly acting on the medium chamber, while in the invention the flexible element does not act on the medium chamber during its return stroke because of the idling means.

In addition, claim 24 recites that the partial strokes have a pre-determined length providing an exact dosage of the medium, which is very important for pharmaceutical use.


The distinctions are also true for the other references.

Conclusion

In view of the Amendment and Remarks, reconsideration of the patent application is respectfully requested. Claims 3-10 and 13-24 are still ending and a Notice of Allowance for these claims is respectfully requested.

Respectfully submitted,

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